#### 09489700 BIG BONITO CREEK NEAR FORT APACHE, AZ

LOCATION.--Lat 33°40'02", long 109°50'46", in NE<sup>1</sup>/<sub>4</sub> sec.28, T.4 N., R.24 E. (unsurveyed), Apache County, Hydrologic Unit 15060101, in Fort Apache Indian Reservation, near right bank on downstream side of pier of highway bridge, 1.9 mi upstream from Tonto Creek, 3.7 mi southeast of Chino Springs, and 12 mi southeast of Fort Apache.

DRAINAGE AREA.--119 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1957 to Apr. 1, 1981 (discontinued). Apr. 2 to Sept. 30, 1981 (discharge measurements only). Prior to October 1969 published as "Big Bonita Creek near Fort Apache."

REVISED RECORDS .-- WRD Ariz. 1969: 1967.

GAGE.--Water-stage recorder. Altitude of gage is 5,910 ft, by barometer.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,510 ft<sup>3</sup>/s Dec. 18, 1978, gage height, 9.04 ft; from rating curve extended above 640 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 7.77 ft; minimum daily, 4.2 ft<sup>3</sup>/s Nov. 30, 1975.

## Annual peak discharges

Water year	Date	Annual peak discharge (ft <sup>3</sup> /s)	Discharge codes	Water year	Date	Annual peak discharge (ft <sup>3</sup> /s)	Discharg codes
1958	03-22-58	1,120		1970	09-06-70	560	
1959	08-15-59	1,200		1971	09-01-71	312	
1960	03-27-60	356		1972	12-26-71	1,090	
1961	04-06-61	83		1973	10-20-72	1,870	
1962	04-17-62	710		1974	08-02-74	194	
1963	08-26-63	557		1975	04-26-75	453	
1964	08-14-64	885		1976	02-10-76	194	
1965	01-08-65	973		1977	08-19-77	243	
1966	12-30-65	1,640		1978	03-03-78	$^{1}2,870$	
1967	08-12-67	448		1979	12-18-78	<sup>1</sup> 4,510	
1968	04-16-68	426		1980	02-15-80	3,440	
1969	04-01-69	678		1981	04-01-81	153	

<sup>&</sup>lt;sup>1</sup>Highest since 1952.

#### Basin characteristics

						Rainfall intensity, 24-hour			
Main channel slope (ft/mi)	Stream length (mi)	Mean basin elevation (ft)	Forested area (percent)	Soil index	Mean annual precipitation (in)	2-year (in)	50-year (in)		
106	33.5	7,920	95.0	3.0	27.9	2.5	4.8		

#### 09489700 BIG BONITO CREEK NEAR FORT APACHE, AZ--Continued

MEAN MONTHLY AND ANNUAL DISCHARGES 1958-80

MAGNITUDE AND PROBABILITY OF ANNUAL LOW FLOW BASED ON PERIOD OF RECORD 1959-81

				STAN-									
				DARD	COEFFI-	PERCENT			DISCHARG	E. IN FT3	S/S. FOR	INDICATE	:D
				DEVIA-	CIENT OF		PERIOD		RECURREN				
	MAXIMUM	MINIMUM	MEAN	TION	VARI-	ANNUAL	(CON-	]	NON-EXCEE	DANCE PRO	BABILITY	, IN PER	CENT
MONTH	(FT3/S)	(FT3/S)	(FT3/S)	(FT3/S)	ATION	RUNOFF	SECU-						
							TIVE	2	5	10	20	50#	100#
							DAYS)	50%	20%	10%	5%	2%	1%
OCTOBER	157	9.2	30	40	1.3	3.7							
NOVEMBER	69	10	28	19	0.71	3.3							
DECEMBER	251	11	39	57	1.5	4.8	1	6.2	4.8	4.2	3.8	3.4	3.1
JANUARY	115	11	40	35	0.86	4.9	3	6.7	5.3	4.6	4.1	3.7	3.4
FEBRUARY	316	10	65	68	1.0	7.9	7	7.2	5.6	4.9	4.3	3.8	3.5
MARCH	521	21	133	119	0.90	16.2	14	7.8	6.3	5.6	5.0	4.5	4.1
APRIL	540	23	224	168	0.75	27.2	30	9.0	7.3	6.4	5.8	5.1	4.7
MAY	610	11	138	149	1.1	16.8	60	11	9.0	8.0	7.1	6.3	5.7
JUNE	148	6.3	34	39	1.1	4.1	90	13	10	9.3	8.6	7.8	7.3
JULY	50	6.5	20	11	0.56	2.4	120	14	11	10	9.7	9.3	9.0
AUGUST	122	7.8	40	29	0.73	4.9	183	19	14	12	11	9.4	8.7
SEPTEMBER	112	7.0	31	26	0.83	3.8							
ANNUAL	167	17	69	43	0.62	100							

MAGNITUDE AND PROBABILITY OF ANNUAL HIGH FLOW BASED ON PERIOD OF RECORD 1958-80

MAGNITUDE	AND	PROB.	ABILITY	OF	INSTANT	raneou	S PEAK	FLOW
	DAGE	ID ON	DEDICE	$^{\circ}$	DECODE	1050	0.1	

DISCHARGE, IN FT3/S, FOR INDICATED RECURRENCE INTERVAL
IN YEARS, AND EXCEEDANCE PROBABILITY, IN PERCENT

2 5 10 25 50# 100#
50% 20% 10% 4% 2% 1%

629 1,440 2,200 3,470 4,650 6,040

WEIGHTED SKEW (LOGS) = -0.04
MEAN (LOGS) = 2.80
STANDARD DEV. (LOGS) = 0.43

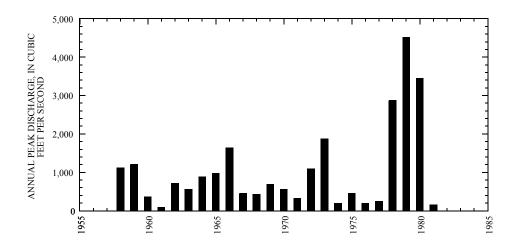
		DISCHAR	GE, IN F	T3/S, FOR	INDICAT	ΓED
PERIOD		RECURRE	NCE INTE	RVAL, IN	YEARS, A	AND
(CON-		EXCEEDA	NCE PROB.	ABILITY,	IN PERCE	ENT
SECU-						
TIVE	2	5	10	25	50#	100#
DAYS)	50%	20%	10%	4%	2%	1%
1	453	969	1,440	2,190	2,860	3,640
3	391	791	1,140	1,670	2,130	2,650
7	328	623	859	1,190	1,470	1,760
15	269	503	684	937	1,140	1,350
30	219	416	576	806	997	1,200
60	172	330	456	638	786	945
90	140	271	375	520	638	761

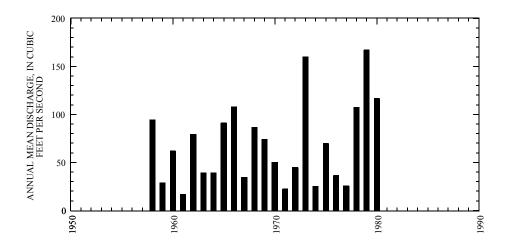
#### DURATION TABLE OF DAILY MEAN FLOW FOR PERIOD OF RECORD 1958-80

	DISCHARGE,	IN FT3/S,	WHICH V	WAS EQUAL	ED OR	EXCEEDED	FOR	INDICATE	D PERCEN	T OF T	IME		
1% 5% 10%	15% 20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%	99.5%	99.9%
597 293 177	122 87	53	34	24	18	15	12	9.9	8.1	6.4	5.6	5.1	4.4

<sup>#</sup> Reliability of values in column is uncertain, and potential errors are large.

# 09489700 BIG BONITO CREEK NEAR FORT APACHE, AZ--Continued





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